

Subject: alt.locksmithing answers to Frequently Asked Questions (FAQ)
Archive-name: locksmith-faqLast-modified: 92/10/20Version: 1.0[This was written and posted a few times early this summer. We have finally gotten ready for news.answers and it will now be a monthly posting ->Spike] This FAQ does not attempt to teach you locksmithing, just to answer simple questions, give you some hints on getting started, and point you to sources of information. Also included is a glossary of common terms. The Appendix covers many supply places, books and tapes.

Questions Answered:

1. Where can I get a lock pick set?
2. How can I make my own picks and tension wrenches?
3. Is it legal to carry lock picks?
4. Where can I get the "MIT Guide to Picking Locks"?
5. What books can I get on locksmithing?
6. What are "pick guns" or "automatic pickers" and do they work?
7. How do I open a Kryptonite lock?
8. How can I get keys stamped "DO NOT DUPLICATE" duplicated?
9. Do Skeleton Keys Exist?
10. Should I bother with high security ("pick proof") locks for my home?
11. What should I do after I read a book?
12. How do I continue learning about locksmithing?
13. How do Simplex pushbutton locks work?
14. What is the "shear line".

Glossary Appendix of sources, books, videotapes.

Credit & Thanks

1. Where can I get a lock pick set? Try a locksmith supply house. Look under "Locksmiths' Equipment & Supplies" in the Yellow Pages. Your State or the company may have requirements, such as having to prove you are a locksmith or showing a driver's license; call and find out. Also look for mail order houses in the Appendix.
2. How can I make my own picks and tension wrenches? You can file or grind picks out of spring steel. It is best to use spring steel - sources include hacksaw blades, piano (music) wire, clock springs, streetsweeper bristles (which can be found along the street after the sweeper has passed), etc. In a pinch safety pin steel, or even a bobby pin (much worse) can be used. When grinding, keep the steel from getting so hot as to anneal (soften) it. You may have to re-harden/re-temper it. (See a book on knife making, gunsmithing, or machine shop practice for a discussion on heat treating steel.) Some people prefer a rigid tension wrench and just bend a small screwdriver for this, but many prefer a slightly flexible wrench and use spring steel. The "MIT Guide to Picking Locks" and the "Eddie The Wire" books (see below) cover making these tools. There are many places you can buy picks and tension wrenches. See the appendix.
3. Is it legal to carry lock picks? This depends on where you are. In the U.S. the common case seems to be that it is legal to carry potential "burglar tools" such as keys, picks, crowbars, jacks, bricks, etc., but use of such tools to commit a crime is a crime in itself. Call your local library, district attorney, or police department to be sure. Places where it *is* illegal to carry lock picks: The District of Columbia.
4. Where can I get the "MIT Guide to Picking Locks"? You can't. The guide must exist in an online form, but no one seems to have it. Rumor has it that (one of) the author(s) is aware of this group and is unwilling to post the guide. The guide is copyrighted, so scanning it in and posting would, in addition to violating the author's wishes, be illegal.
5. What books can I get on locksmithing? An excellent encyclopedic reference (based on reading the 1st edition - but people have said that the 2nd and 3rd editions carry on the coverage) The Complete Book of Locks & Locksmithing, 3rd Ed. C.A. Roper and Bill Phillips TAB Books ISBN 0-8306-3522-X (Paper) 0-8306-7522-1 (Hard) \$18.95 (Paper) \$26.95 (Hard) also many people think highly of: Eddie The Wire: How to Make Your Own Professional Lock Tools "Eddie The Wire" Loompanics Unlimited ISBN 0-685-39143-44 Volumes \$20 Your local book store should be able to order these for you. You can find other titles under "Locksmithing" in the Books In Print Subject Index, which any decent bookstore should have. Also see the Appendix.
6. What are "pick guns" or "automatic pickers" and do they work? A "pick gun" is a manual or powered device that uses a vibrating pin to try to bounce the pin tumblers so there are spaces at the shearline so the the plug can rotate. They are not a panacea, aren't always effective, and the net seems to feel that these are no substitute for a little skill with a pick and learning how locks work.
7. How do I open a Kryptonite lock? Easiest: If you registered your lock, call or write Kryptonite for a new key. Or call a local locksmith, they should be able to pick and re-key the lock for you. Easy: Get a car jack and jack it apart. Careful, otherwise it is very possible that you'll damage the bike. Easy: Use a cut-off wheel in a Dremel tool to cut the lock at the hole in the shackle

(where there is the least to cut.) Harder: If it doesn't have the newer brass jacket, peel back the plastic coating on the key end, drill out the pin that holds in the cylinder, remove the cylinder, open. Hardest: Chill the metal of the "U" with liquid Nitrogen or Freon, smash with hammer. While this is a "well known" method, it may be an urban legend.8. How can I get keys stamped "DO NOT DUPLICATE" duplicated? Some locksmiths will take the Nike approach and "Just Do It". Some will even stamp "DO NOT DUPLICATE" on the copy for you. If that doesn't work, label the key by sticking some tape on the "DO NOT DUPLICATE" stamp and try again.9. Do Skeleton Keys Exist? "Skeleton Keys" are keys ground to avoid the wards in warded locks. There is no analog with modern pin tumbler locks. Master keys may open a large set of locks, but this is designed in when the locks are installed.10. Should I bother with high security ("pick proof") locks for my home? Why not? If you are installing locks, the better quality ones are not much more expensive, and are physically more secure (e.g., have hardened inserts to protect against drilling.) However, note that protection against picking doesn't add a large amount to your security since burglars almost always go the brute force route. Regardless, you should have a deadbolt, and check your window security.11. What should I do after I read a book? After some reading, then the next thing is some experience. Go to K-Mart, buy a deadbolt lock for around \$10, and take the entire thing apart (you'll need tools like screwdrivers, and perhaps a pair of pliers) to see how a pin tumbler lock works. K-Mart carries a clone of the Kwikset which is made to be very easy to take apart. (Key-in-knob locksets are both more expensive and harder to take apart.) You then can practice picking this lock by leaving out all but one stack of pins. This will be exceedingly easy to pick, and will mostly provide experience in manipulating the pick and tension wrench. Then put in one more pin stack and try again - feeling when one stack is picked and then the second one will let the cylinder move. Keep on adding stacks. Try picking with the curved finger, and also raking.12. How do I continue learning about locksmithing? There are several things you can do to continue learning more about locks and locksmithing. One, of course, is to subscribe to a locksmithing magazine. Some years ago I compared the National Locksmith to the Locksmith Ledger and felt that the latter was a bit better on technical info. Call yourself a Student Locksmith, or perhaps a Security Consultant (surely you have given some advice to *somebody*!). But all this reading won't help all that much, so you have to continue buying various types of locks, taking them apart, figuring out everything about them, and installing, removing, modifying them. Buy some key blanks, make up a master key scheme, and file the keys to fit (assuming you don't have a key machine) - filing may take a few minutes, but it does work. Maybe buy a re-keying kit (kit of different size pins, with a follower) and do some re-keying for your family or friends (the same size pins fit, I think, the familiar Kwikset and Schlage pin tumbler locks) so that their deadbolts can be opened with their normal front door key. Or buy a deadbolt installation kit (hole saw plus template - I think that Black and Decker makes a good one, available at better building supply places) and put in a few deadbolts for your family and friends - charging them only for the material plus a couple of bucks towards the installation kit - and re-key the deadbolt for them, too. Buy or make a pick set, and use your practice locks to practice picking. Do you have a good locksmith supply catalog? If not, give a call to a local supplier, or perhaps to Kenco of Omaha, Nebraska (they have an 800 number) and get their catalog - they sell lots of goodies including most everything I've been discussing. Help people at work who have been locked out of their desks or filing cabinets. Desks usually have wafer tumbler locks which are *much* easier to pick than pin tumbler locks. Filing cabinets are not as easy to pick, but are pickable (actually some are very easy to pick - they vary greatly) and also can be opened by pushing a flexible plastic ruler past the sliding drawer - carefully inspect some working cabinets to see what I'm talking about.13. How do Simplex pushbutton locks work? They are complicated, and it takes a rather long discussion to cover their operation and how to manipulate them. A clear discussion is available by anonymous ftp from the host ftp.com in /hobbit/flamage/mine/simplex.locks and there may be some other locksmithing info in hobbit's directory.14. What is the "shear line"? Visualize a door lock - there is a fixed block (the lock

body) of metal with a cylindrical hole in it - the axis of this hole is horizontal. It is filled with a "cylinder", which is the part which turns with your key - and something attached to the rear of the cylinder actuates the latch/bolt when you turn the cylinder. There are some small vertical holes drilled in both the cylinder and the fixed block so they match up - and they are in a straight line which is the same line as the key. Each hole (pin chamber) is filled with (at least) two pins (small cylindrical pieces of metal) but the pins are of varying length, and there is a spring at the top of the chamber so that the pins are pushed away by the spring. The bottom pin is short enough so that it will be pushed completely down within the cylinder and the top pin (imagining right now there are just two pins - extra one are only used for master keying) goes from inside the cylinder to inside the fixed block. Now the cylinder can't turn, because in each pin chamber there will be a pin blocking the "shear" line - the line where the pin chamber would "shear" apart when the cylinder turned. You put your key in - and the different heights on the key are made to "complement" the different lengths of the bottom pin so that all of the bottom pins are raised up just to the "shear line" between the cylinder and the fixed block part of the lock. Then the key can turn the cylinder around its axis and actuate whatever internal mechanisms are inside.

Glossary:
blank - A key that has not yet been cut to fit a lock.
core - A removable cylinder and plug, used in an interchangeable core system.
core key - A key which is used to remove a core.
cylinder - The part of the lock in which the pins are set and which contains the plug.
cuts - The notches cut in the key to make it fit a lock.
key way - The slot in which the key is inserted.
master key - A key which opens a group of locks designed to match it.
pin tumblers - the pins in the lock which are moved to the shear line by the key.
pin chamber - the tubular hole in which pins and a spring stay.
plug - The part of the lock which the key is inserted and is rotated by the key.
wafer tumbler - used in locks which are less expensive than pin tumbler locks. They behave somewhat similarly.
warded lock - A lock using wards to keep an incorrect key from entering the key hole and turning.

Here are some of the things collected about locations and availabilities (most are from alt.locksmithing). We do not endorse any of these, but feel that you can get information by reading.

Phoenix Systems Inc. P.O. Box 3339, Evergreen, CO 80439 303-277-0305 [Survivalist Group, all though the "Shoot all the Commies for God" stuff is kept to a minimum.]

OUR LOCK PICKS ARE THE FINEST QUALITY PROFESSIONAL TOOLS AVAILABLE. Each pick is made of hard-finished clock-spring steel, tempered to the correct degree of hardness. Whether the subject is wafer tumbler locks or 6 & 7 pin tumbler locks, our picks are the best available, and the standard of the industry. With a few minutes of practice, even a beginner can open most padlocks, door locks and deadbolts.

NOTE: BE SURE TO CHECK YOUR LOCAL, AND STATE ORDINANCES GOVERNING POSSESSION OF THESE TOOLS.

#604 SUPERIOR PICK SET. Hip pocket size in top grain leather case. Our most complete set. 32 pick, tension tools & extractors. [Picks seem to be from 'HPC' but I can't tell for sure.] Price: \$75.00 ea.

#606 TYRO PICK SET. An excellent choice for the beginner. Cowhide leather case contains 9 picks, tension wrenches & key extractor. [Picks seem to be from 'HPC' but I can't tell for sure.] Price: \$34.95 ea.

#607 WARDED PADLOCK PICK SET. This 5 piece padlock pick set is made of the finest blue tempered spring steel. This set will pick open most every warded padlock made today. Price: \$9.95 ea.

#610 DOUBLE-SIDED TUMBLER LOCK PICKS. Set of 4 picks for use with double-sided, disc tumbler, showcase, cam and PADLOCKS. An excellent addition to your other pick sets. Price: \$24.95 ea.

#617 PADLOCK SHIM PICKS. Open padlocks in seconds! Our new Padlock Shim pick's unique design makes them so successful that it is frightening! Simply slide the shim down between the shackle and the lock housing, twist and the lock is open. Works best on laminated type padlocks (the most popular type) but will open ALMOST ANY TYPE OF PADLOCK -- INCLUDING THE POPULAR 3 NUMBER COMBINATION TYPE. Include 20 shims -- 5 each of the 4 most common shackle diameters for perfect fit every time. Comes with complete instructions. Price: \$39.95 set

#618 SCHLAGE WAFER PICK SET. There are two types of Schlage wafer locks, each needing a different base key to pick with. This set comes with both types of base keys and the pick. With the proper base key the lock is already half picked. Very quick and easy to use. Comes with complete instructions. [It

looks like 2 filed down keys, and a straight pointy piece of metal for the pick.] Price: \$34.95 set #620 PICK GUN. Picks locks FAST. Open locks in less than 5 seconds. Specifically designed for tumbler locks. Insert pick into key slot, then just pull trigger. Throws all pins into position at one time. Lock is then turned with tension bar. Used extensively by police and other government agencies. Gun is spring loaded, with tension adjustment knob. Comes with 3 needle picks and tension bar. No batteries necessary. Life-time guarantee. [The model name is "LockAim", but I can't make out the brand name.] Price: Regular \$75.00 OUR SALE PRICE \$59.95 ea. #612 THE SLIM JIM. Car door opener. The tool does not enter inside the car. Opens a car door by "feel" rather than sight. With a little practice, car opening will be no problem. For GM, Ford and Chrysler cars. Made of clock-spring steel and is hand finished. Price: \$16.00 ea. #613 THE SUPER JIM. This tool will open most GM, Ford and AMC car doors. Opener does not enter vehicle. Made wider and thicker, and is bright nickel plated. Faster openings on most domestic automobiles. With illustrated instructions. Price: \$16.00 ea. #614 HOUDINI CAR DOOR OPENER. The latest and best innovations on car door openers. It works the same as your old Slim Jim, except it now folds neatly to fit in pocket or toolbox without getting in the way. ONLY 6 1/2 INCHES LONG WHEN FOLDED. Open up and snaps into place like a fold-up ruler, excellent stainless steel construction with vinyl handle for comfort. [Looks like a cross between a slim jim and a foldup ruler.] Price: \$19.95 ea. #615 PRO-LOK "CAR KILLER" KIT. Over the years we have had thousands of requests for a multi-vehicle opening kit. We are now able to offer the most complete kit that we have ever seen. This kit of tools will open over 135 automobiles, both domestic and foreign, on the road today. The opening procedure for each vehicle is diagrammed and explained in the instruction manual. Kit comes with complete instruction manual and gas cap pick tool. [It's 2 slim jims, a couple of pieces of bent wire, one of which has a string on it, and a little 2 headed key. (I assume the key is for the gas cap.)] PRICE: \$39.95 ea. #600 TUBULAR LOCK PICK. This tool is an easy and reliable method for picking tubular locks, as found on commercial vending machines, washers, dryers, etc. This newest high tech design is much faster and easier to use than the old type that used rubber bands to hold the feeler picks. Internal neoprene "O" rings together with knurled collar provide a very simple and easy tension adjustment. Sturdy stainless steel construction provides for long-lasting service. This tool will, with a little practice, easily and quickly open any regular center-spaced tubular lock -- the most popular type of tubular lock on the market. Comes with complete instructions and leather carrying case. [A bunch of feeler picks around a tube.] Price: \$129.95 ea. [Yipe!!!] Here are a few titles: (with Library of Congress Catalog Number) - - ----- Title: Locksmithing Author: F.A. Steed LC Number: TS 520 S73 1982 Title: All About Locks and Locksmithing Author: Max Alth LC Number: TS 520 A37 1972 Title: Professional Locksmithing Techniques Author: Bill Phillips LC Number TS 520 P55 1991 or you can buy books from (no credit cards) - -

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 execution. - -

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investigation and its follow-up. Price: \$14.95#52054 TECHNIQUES OF SAFECRACKING by Wayne B. Yeager (92pp, 1990). Chapters include: Safe Mechanics and Operations, Guessing the Combination, Manipulation Techniques, Safe Drilling Methods, Punching and Peeling, Torches Etc., Explosives, Miscellaneous Methods of Safe Entry, Safe Deposit Boxes, Deterrence and Prevention, and more. Price: \$12.00#52052 HIGH SPEED ENTRY - INSTANT OPENING TECHNIQUES (VHS TAPE - 1Hr) 1990. Topics include: the Rabbit Tool and Hydra force door openers, the Omni Force jam spreader, the best exothermic lance in the world, two tools that open almost any auto in America, electronic locksmiths, rippers and pullers, shove knives and re-lockers, and more "techie" tools. A complete source guide is included. Price: \$39.95#52032 THE COMPLETE GUIDE TO LOCK PICKING by Eddie the Wire (80pp 1981). The very best book ever written on how to pick locks (quit the claim). Topics covered include: Basic Principle and General Rules, How To Mount Practice Locks, Warded Locks, Disc Tumbler Locks, Lever Tumbler Locks, Pin Tumbler Locks, Wafer Tumbler Locks, Lock Modifications To Thwart Tampering And How To Overcome Them, Various Other Ways Of Bypassing Locks And Locking Mechanisms. Price: \$14.95#52040 HOW TO MAKE YOUR OWN PROFESSIONAL LOCK TOOLS (4 Volume set) by Eddie the Wire (31pp, 1980; 50pp 1981; 44pp, 1981; 55pp, 1986). Basically this set describes how to make all the tools mentioned the above book along with mass production techniques, carrying cases, using a PC to generate pick profiles, making "soft" break-ins, how to "case" a subdivision, and more. Price: \$20.00#52044 PERSONAL PICKS (VHS TAPE - 72min) by Eddie the Wire, 1988. Demonstrates the step-by-step process of making lock tools in the home workshop. Price: \$29.95#52051 EXPERT LOCK PICKING (VHS TAPE - 60min) by Ron Reed, 1990. The author has won the California Locksmiths Association lock-picking championship (I guess that's good). Uses specially designed cutaway, see-through locks, so you can view the inside mechanisms of working locks as they respond to picking techniques. Price: \$59.95#52048 ADVANCED LOCK PICKING by Steven M. Hampton (50pp, 1989). Describes the inner workings of the new high-security locks and includes templates for making custom tools. Schematic diagrams for portable electronic picks to open magnetic key and card locks. Tips on enhancing finger sensitivity, concentration power, constructing practice lock boxes, and more. Price: \$10.00#52045 CIA FIELD-EXPEDIENT KEY CASTING MANUAL (48pp, 1988). How to make a duplicate key when you can keep the original only a short time. Price: \$8.00#52043 HOW I STEAL CARS - A REPO MAN'S GUIDE TO CAR THIEVES' SECRETS (VHS TAPE - 45min) by Pierre Smith, 1988. How to open and enter practically any modern automobile and how to start them without the key. Price: \$49.95#52016 HOW TO FIT KEYS BY IMPRESSIONING by Desert Publications (26pp, 1975). Subjects covered include: Fitting bit keys, Fitting flat steel keys, Fitting lever tumbler keys, Fitting disc tumbler keys, Necessary tools, Techniques of obtaining impressions, and more. Price: \$7.00 Credit & Thanks The alt.locksmithing FAQ was put together from postings by @NUMCALLS@@@HOMEPHONE@@@DATA@PHONE@spike@world.std.com (Joe "Spike" Ilacqua), an@UP Schaffer), with a major data collection effort by sanguish@digifix.com (Scott Anguish). Edited by hes. Translated to English by eliz@world.std.com (Elizabeth Lear). Send comments, criticisms, and complements to "alt-locksmithing-faq@world.std.com". The following have contributed to this FAQ: Scott Anguish <sanguish@digifix.com> Chris Boyd <clb@oc.com> Robert Bruce Findler <r27+@andrew.cmu.edu> Hobbit <hobbit@ftp.com> J. James (Jim) Belonis II <manager@dirac.phys.washington.edu> Larry Margolis <margoli@watson.ibm.com> Andy McFadden <fadden@uts.amdahl.com> - -